Subject: Re: Lag and A_Correlate/C_Correlate
Posted by Max on Tue, 07 Jul 2009 01:00:50 GMT
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On Jul 7, 1:51 am, Gianguido <gianguido.cia...@gmail.com> wrote:
>> We would both be very grateful if someone could help clear up these
>> questions: firstly, what does lag measure? Secondly, how does the lag
>> parameter affect the output of the A_CORRELATE and C_CORRELATE
>> functions? Thirdly, what can my friend do to get this to work?
>
> 1) lag is an input not an output. so i am not sure what you mean by
> what does it measure.
> A different way to think of lag is "shift". then these routines
> calculate how "similar" the arrays are if you shift them by 'lag'.
>
> 2) this depends entirely on the input array.
>
> 3) give us more info on the problem she's trying to solve.
>
>
>
>> One idea I've had from searching the internet include creating an

>> C_CORRELATE with something like "lag = [-F, F]". Is this at least on
>> the right track?
>
> findgen won't give you very interesting results. I would create:
>
> x=findgen(1000)/25.
> g1=exp(-(x-10)^2)
> g2=exp(-(x-30)^2)
>
> plot, x, g1
> oplot, x, g2;as you can see these curves would match perfectly if they
> were *shifted* by 20!
>
> lag=indgen(1000)
>
> cor=c_correlate(g1,g2,lag,/double)
>
> plot, lag/25., cor
> ;this plot shows that g1 and g2 are most correlated if you indeed
> shift them by 20!
>
> Hope this helps.
>
> Ciao,
> G

Thanks very much. Again, sorry I couldn't be more useful in my description. I've forwarded my friend the link to this thread, so she should be on eventually to provide some more details to anyone interested in tackling this. If she isn't, I appreciate your taking time out to help with such a basic question. If she does come on to post...hi Catie!
